

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K14/205 C12N15/11 G01N33/569 C07K16/12 A61K39/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K C12N G01N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search, CHEM ABS Data, BIOSIS, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE GSP 16 June 2003 (2003-06-16), XP002334809 retrieved from EBI Database accession no. ABU26391	1-14, 17-27, 30, 31, 35-39, 41, 42, 45-47, 50, 53
X	abstract -& WO 02/077183 A (ELITRA PHARMACEUTICALS, INC; WANG, LIANGSU; ZAMUDIO, CARLOS; MALONE, C) 3 October 2002 (2002-10-03) cited in the application See particularly pages 136-138, 178, 179; examples 11-13, 16; claims 24-35, 141, 148, 157-159; sequence 54315 ----- -/--	1-14, 17-27, 30, 31, 35-39, 41, 42, 45-47, 50, 53

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

6 July 2005

Date of mailing of the international search report

07 SEP 2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>DATABASE UniProt 15 October 2000 (2000-10-15), XP002326090 retrieved from EBI Database accession no. Q9PJ34</p> <p>abstract -& PARKHILL J ET AL: "THE GENOME SEQUENCE OF THE FOOD-BORNE PATHOGEN CAMPYLOBACTER JEJUNIREVEALS HYPERVARIABLE SEQUENCES" NATURE, MACMILLAN JOURNALS LTD. LONDON, GB, vol. 403, 10 February 2000 (2000-02-10), pages 665-668, XP000906767 ISSN: 0028-0836 cited in the application the whole document</p>	<p>1-16, 18-29, 31-34, 36-40, 42-44, 46-49, 51,52</p>
Y	<p>DATABASE UniProt 1 October 2000 (2000-10-01), XP002334638 Database accession no. Q9PM33</p> <p>abstract & PARKHILL J ET AL: "THE GENOME SEQUENCE OF THE FOOD-BORNE PATHOGEN CAMPYLOBACTER JEJUNIREVEALS HYPERVARIABLE SEQUENCES" NATURE, MACMILLAN JOURNALS LTD. LONDON, GB, vol. 403, 10 February 2000 (2000-02-10), pages 665-668, XP000906767 ISSN: 0028-0836 cited in the application the whole document</p>	<p>1-16, 18-29, 31-34, 36-40, 42-44, 46-49, 51,52</p>
Y	<p>DATABASE UniProt 1 October 2000 (2000-10-01), XP002334639 retrieved from EBI Database accession no. Q9PNS2</p> <p>abstract</p> <p style="text-align: center;">-/--</p>	<p>1-16, 18-29, 31-34, 36-40, 42-44, 46-49, 51,52</p>

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	<p>& PARKHILL J ET AL: "THE GENOME SEQUENCE OF THE FOOD-BORNE PATHOGEN CAMPYLOBACTER JEJUNIREVEALS HYPERVARIABLE SEQUENCES" NATURE, MACMILLAN JOURNALS LTD. LONDON, GB, vol. 403, 10 February 2000 (2000-02-10), pages 665-668, XP000906767 ISSN: 0028-0836 cited in the application the whole document</p> <p>-----</p>	
Y	<p>DATABASE UniProt 1 October 2000 (2000-10-01), XP002334640 retrieved from EBI Database accession no. Q9PI85</p> <p>abstract & PARKHILL J ET AL: "THE GENOME SEQUENCE OF THE FOOD-BORNE PATHOGEN CAMPYLOBACTER JEJUNIREVEALS HYPERVARIABLE SEQUENCES" NATURE, MACMILLAN JOURNALS LTD. LONDON, GB, vol. 403, 10 February 2000 (2000-02-10), pages 665-668, XP000906767 ISSN: 0028-0836 cited in the application the whole document</p> <p>-----</p>	<p>1-14, 17-27, 30,31, 35-39, 41,42, 45-47, 50,53</p>
Y	<p>ALLAN E ET AL: "Genes to genetic immunization: identification of bacterial vaccine candidates" METHODS : A COMPANION TO METHODS IN ENZYMOLOGY, ACADEMIC PRESS INC., NEW YORK, NY, US, vol. 31, no. 3, November 2003 (2003-11), pages 193-198, XP004457831 ISSN: 1046-2023 N.B.: publishd on-line 18 September 2003 The whole document; see particularly Fig.1</p> <p>-----</p>	1-53
A	<p>US 5 470 958 A (BLASER ET AL) 28 November 1995 (1995-11-28) the whole document</p> <p>-----</p>	
A	<p>CA 2 296 869 A1 (JOE, ANGELA; JIN, SONGMU; CHAN, VOON LOONG) 24 July 2001 (2001-07-24) the whole document</p> <p>-----</p>	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2004/000803

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1-53(all partially): subjects 1,25,36 and 43
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Inventions 1-36: claims

1-16,18-29,31-34,36-40,42-44,46-49,51,52(all partially)

Composition comprising a surface-located Campylobacter polypeptide, an antigenic fragment of variant thereof, a polynucleotide encoding it, an expression vector comprising said DNA, a recombinant cell comprising said DNA or said vector, an antibody capable of binding said polypeptide, their preparation and their compositions for medical or diagnostic use, wherein the polypeptide is chosen from SEQ ID No 1-36 and the fragments comprise a relevant fragment thereof as defined by SEQ ID Nos 52-119

Inventions 37-51: claims

1-14,17-27,30,31,35-39,41,42,45-47,50,53(all partially)

Composition comprising a surface-located Campylobacter polypeptide, an antigenic fragment of variant thereof, a polynucleotide encoding it, an expression vector comprising said DNA, a recombinant cell comprising said DNA or said vector, an antibody capable of binding said polypeptide, their preparation and their compositions for medical or diagnostic use, wherein the polypeptide is chosen from SEQ ID No 37-51 and the fragments comprise a relevant fragment thereof as defined by SEQ ID Nos 52-119

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02077183	A	03-10-2002	US 2002061569 A1	23-05-2002
			WO 02077183 A2	03-10-2002
			US 2004029129 A1	12-02-2004
US 5470958	A	28-11-1995	US 5200344 A	06-04-1993
			AU 681043 B2	14-08-1997
			AU 3042995 A	14-12-1995
			AU 663858 B2	26-10-1995
			AU 9071791 A	11-06-1992
			CA 2096016 A1	14-05-1992
			EP 0557467 A1	01-09-1993
			JP 6505024 T	09-06-1994
			WO 9208485 A1	29-05-1992
CA 2296869	A1	24-07-2001	NONE	